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(54) **System and method to enable resource partitioning in wireless networks**

(57) Systems and methodologies are described that facilitate improved resource partitioning and interference management in a wireless communication system. Techniques are described herein for the transmission and use of various types of signaling, such as Access Request commands, Reverse Link Special Resource Utilization Message (R-SRUM) signaling, Forward Link Special Resource Utilization Message (F-SRUM) signaling, and the like, for managing interference associated with range extension, restricted association networks, and other jamming scenarios. As described herein, downlink resource coordination and interference management are accomplished through the use of Access Request or R-SRUM signaling conducted in a unicast or broadcast fashion, and uplink resource coordination and interference management are accomplished through the use of F-SRUM signaling. As further described herein, a clean communication channel such as a Low Reuse Preamble (LRP) channel can be utilized for interference management signaling and/or leveraged for determining timing of various signaling messages.

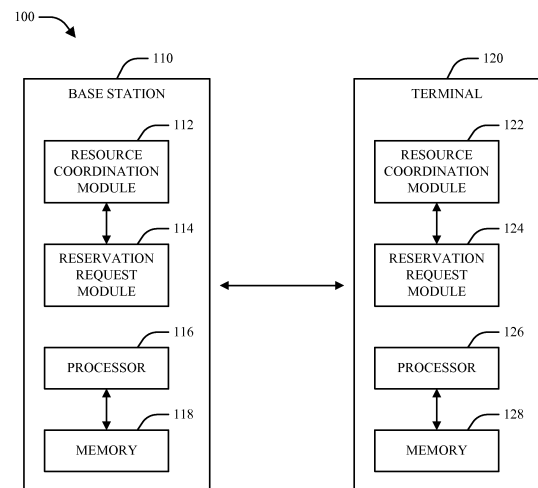


FIG. 1



EUROPEAN SEARCH REPORT

Application Number
EP 11 16 9331

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	EP 1 850 612 A (FUJITSU LTD [JP]) 31 October 2007 (2007-10-31) * the whole document *	1,19	INV. H04W72/04
E	WO 2009/097039 A (QUALCOMM INC [US]; BORRAN MOHAMMAD J [US]; KHANDEKAR AAMOD [US]; BHUSH) 6 August 2009 (2009-08-06) * the whole document *	1,19	
E	WO 2009/099471 A (QUALCOMM INC [US]; KHANDEKAR AAMOD [US]; AGRAWAL AVNEESH [US]; SAMPATH) 13 August 2009 (2009-08-13) * the whole document *	1,19	
			TECHNICAL FIELDS SEARCHED (IPC)
			H04W
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 11 July 2013	Examiner Behringer, Lutz
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p>			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 11 16 9331

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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11-07-2013

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
EP 1850612	A	31-10-2007	CN	101116365 A	30-01-2008
			EP	1850612 A1	31-10-2007
			EP	2222127 A1	25-08-2010
			EP	2547162 A1	16-01-2013
			JP	4640855 B2	02-03-2011
			US	2007280170 A1	06-12-2007
			US	2010216497 A1	26-08-2010
			WO	2006087797 A1	24-08-2006

WO 2009097039	A	06-08-2009	AU	2008349429 A1	06-08-2009
			CA	2713844 A1	06-08-2009
			CN	101981981 A	23-02-2011
			EP	2250842 A1	17-11-2010
			JP	2011514039 A	28-04-2011
			KR	20100108452 A	06-10-2010
			RU	2010136723 A	20-03-2012
			TW	200939824 A	16-09-2009
			US	2009197538 A1	06-08-2009
			WO	2009097039 A1	06-08-2009

WO 2009099471	A	13-08-2009	AU	2008349778 A1	13-08-2009
			CA	2711568 A1	13-08-2009
			CN	101933369 A	29-12-2010
			EP	2238779 A2	13-10-2010
			JP	2011512083 A	14-04-2011
			KR	20100117643 A	03-11-2010
			RU	2010136703 A	10-03-2012
			TW	200939815 A	16-09-2009
			US	2009197588 A1	06-08-2009
			WO	2009099471 A2	13-08-2009

EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82